

Beard (Geo. M.)

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NEURASTHENIA,
Spinal Irritation,

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—AND—

ALLIED AFFECTIONS;

WITH REMARKS.

BY GEO. M. BEARD, M. D.,
NEW YORK.

From Chicago Journal of Nervous and Mental Disease.

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CASES OF HYSTERIA,
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UNDER this head I propose to detail a few cases of nervous disease—commonly called functional—that are at once exceedingly frequent and exceedingly annoying both to patients and physicians. I shall treat the subject mainly from the clinical and practical stand-point, reserving the discussion of its scientific and philosophic relations for another occasion.

By hysteria and allied affections I mean that large and increasingly numerous class of affections that pass among the people and among the profession by the vague and half-erroneous terms, spinal irritation, nervous exhaustion, general debility, general neuralgia, etc.

In a work on which I have been long engaged, and which is now slowly progressing, I hope to be able to unify these dis-

eases—to show that they have in general a common pathology, a common history, a common group of symptoms, and a common therapeutics. I shall seek to show that these diseases, or symptoms of disease—or, as they might, perhaps, with better justice be called, results of disease—are expressions of a common nervous diathesis; that they are all liable to run into each other, and to act vicariously to each other; that they are a part of the price we pay for civilization, being confined mostly to the enlightened peoples of modern times; and that they are, in all their dreary shapes, most abundant in the northern portions of the United States of America.

I shall not anticipate the details of the systematic arguments by which these propositions will be supported, except so far as certain points of interest may be suggested by the following cases.

Those who are unwilling to give a provisional acceptance of my general theory of these maladies, or even to think favorably of it, may yet, perchance, attend to the recital of the results of treatment in cases, some of which are richly suggestive and quite rare; and from the therapeutics they may, I trust, be led to reason backwards toward the diagnosis and pathology.

GENERAL PRINCIPLES OF TREATMENT.

I treat all these affections, by whatever name known, on the same general principles, varying and adapting the method according to individual need. Of the various methods of using electricity, I depend mainly on *general faradization* and *central galvanization*, using them sometimes in alternation—in some cases finding the former, in others the latter, more beneficial.*

Internally, I use preparations of phosphorus and cod-liver oil, and sometimes arsenic. I make a large use of the cod-liver oil emulsion. I have seen good results from the oxide and phosphide of zinc and chemical food.

* The comparative value of these two American methods of using electricity in medicine is discussed by Dr. Vater, of Prague, Germany, in an elaborate series of articles now being published in the *Wiener Allgemeine Zeitung*. The series began with the May number. Dr. Vater confirms in full detail all that I have ever claimed for these methods.

Externally, I use ice and hot-water bags to the spine with studious caution, and mild and cautious counter-irritation to tender points on the spine. My method of counter-irritating nervous patients is, to take one of Alcock's porous plasters and cut off a piece of about the size and shape of my little finger; along the centre of this I place a little Spanish-fly ointment, and then apply over the tender spot, and let it stay there until it falls off. Counter-irritation thus used is not very annoying, and is quite effective. I use Alcock's porous plaster because it sticks better than anything I can find.

Except when I am experimenting, I use all these remedies, or several of them, simultaneously.

NEURASTHENIA, CEREBRASTHENIA, MYELASTHENIA.

The old and almost forgotten term, *neurasthenia*, I have for several years applied to the condition known in common language as *nervous exhaustion*; and I have recently subdivided this condition into *cerebrasthenia* and *myelasthenia*, according as the exhaustion is chiefly manifested in the brain or in the spinal cord. When the exhaustion shows itself chiefly in the brain, there are the symptoms of insomnia, headache, vertigo, flashes before the eyes, *muscæ volitantes*, tinnitus, etc. When the exhaustion shows itself chiefly in the spinal cord, there are the symptoms of pain in the back, at any point below the first cervical and last dorsal vertebræ, and mostly between the shoulder and in the lumbar region; spinal tenderness (though not always); weakness of the lower limbs, and sometimes of the arms; flatulence; feeling of oppression on the chest; gastralgia, intercostal and abdominal; neuralgia of the bladder and sexual disturbance; numbness of the extremities, etc. While the term *neurasthenia* implies both *cerebrasthenia* and *myelasthenia*, yet in some cases the exhaustion seems to be almost exclusively confined to the brain alone, or to the spinal cord alone.

The terms cerebral irritation and spinal irritation indicate symptoms that are usually prominent in *cerebrasthenia* and *myelasthenia*: the head as well as the spine may be tender, either at points or all over. The terms cerebral irritation and

spinal irritation, simply refer to one symptom, and do not rightly express, even in a general way, the nature of the disease.

The meaning of these terms will be made more clear by the following cases :

NEURASTHENIA, CEREBRASTHENIA, AND MYELASTHENIA.

Vertigo ; feeling of tingling and pricking all over the body ; spinal tenderness ; mental depression ; improvement under general faradization and central galvanization, combined with internal medication.

CASE I.—Mr. L——, aged 36, was referred to me, June 25, 1873, by Dr. Geo. Baker. For several months, since January, 1873, the patient had suffered from vertigo, feeling of tingling, pricking, and stinging over the surface of the body ; pain in the back ; dyspepsia ; constipation ; insomnia, and mental depression. The spinal irritation was quite variable in its seat, being sometimes in the lower, sometimes in the upper vertebræ. Sometimes there was tenderness of the cervical vertebræ, with stiffness of the neck.

The diagnosis was neurasthenia, including cerebrasthenia and myelasthenia ; and the pretty evident cause was excess in sexual indulgence combined with over work in business.

I gave general faradization alternately with central galvanization, for one month ; and, at the same time, used phosphide of zinc pills in doses of 1-10 of a grain, and chemical food. Counter-irritation was also employed over the tender vertebræ. July 5, he was much better. August 1, still better ; and September 1 he resumed active business.

In the following case there was profound myelasthenia, and but very little cerebrasthenia.

MYELASTHENIA OF THREE YEARS' STANDING.

Tenderness of the vertebræ ; occasional numbness of the arms and legs ; peculiar susceptibility to hot water ; pain in the back with great weakness ; mental irritability and despondency. Relief under central galvanization, general faradization, continued counter-irritation, and internal medication.

CASE II.—Mr. W——, aged 27, a merchant of New York, was first seen by me in consultation with Dr. H. W. Thayer, of Brooklyn, in the fall of 1871.

For three years the patient had been afflicted with symptoms of general debility, so called ; great weakness in the lumbar region ; occasional attacks of numbness in the left leg usually, sometimes in the left arm, and lasting for a few hours or days. The numbness would be brought on in both sciatic nerves and their branches by long sitting. All the symptoms of weakness and numbness were aggravated by over physical exertion, especially by long standing or walking, or labor. Whenever the patient put his left hand in

warm water, the muscles contracted and the hand felt very disagreeable : very much as when the hand is put in water that is connected with an electric current.

Weakness of the bladder, to a very slight extent, had been observed at times,—a trivial slowness in passing water, and nothing more. These attacks came on only by long intervals, and were scarcely noticed. Lying down for a short period seemed to relieve the symptoms, especially after great exertion ; but attacks of localized numbness had come on while in bed.

Physical examination showed tenderness of the lumbar and dorsal vertebræ between the shoulders. The æsthesiometer showed no anæsthesia of the limb ; electro-muscular contractibility was normal ; except insomnia and mental depression at times, there was no evidence of cerebral disease beyond pure exhaustion. Mental labor, however, when protracted, made him worse. The pulse was slow, but tolerably full.

The back was so weak that riding in the cars caused great distress, and he wished to have something constantly pressed against it to sustain it. For that purpose he sometimes took a pillow with him as he traveled. In order to improve his health he had spent several months traveling in Europe, but was more injured than benefited thereby. *Long standing in picture galleries* seemed to have aggravated all the symptoms.

In the excessive heat of summer the patient was always worse ; Dyspepsia was more or less constant in the system ; also chilliness up and down the back, and coldness of the lower limbs. *Hyperæsthesia* of the nerves of the chest and abdomen was observed ; also great susceptibility to tickling around the neck, breast, and stomach.

The sexual power was not specially impaired, the appetite was tolerable, and the nutrition well maintained. The queries that arose in the diagnosis were, whether the case was one of spinal congestion going on to posterior spinal sclerosis, or single *myelasthenia* with *cerebrasthenia*. At first I held my judgment in suspense, but finally concluded that the latter was the true condition : that it was caused by overwork, perhaps the excessive use of the sexual organs acting on a nervous constitution. The results of treatment seemed to confirm this view.

I prescribed and used for several months, by intervals, the following treatment : Central galvanization, general faradization, the internal use of Horsford's acid phosphate, cod-liver oil emulsion, and counter-irritation to the spine by means of various blisters of cantharides and tartar-emetic ointment.

Under this combined treatment the patient slowly improved somewhat ; was soon able to attend to business in a moderate way ; slept better, and could walk farther. Under the influence of excessive physical exertion he relapsed, and afterwards improved slowly. The patient subsequently relapsed, and was again treated, with success, by phosphide of zinc.

The symptoms of *transient numbness* of the extremities on pressure is a very common one in all forms of nervous exhaustion, as I have long observed.

The value of time as a remedy was shown in the following case.

NEURASTHENIA AT CHANGE OF LIFE.

Headache; weariness; extreme exhaustion; mental depression. Slight benefit from general faradization and central galvanization. Subsequent improvement and recovery under time and hygiene.

CASE III.—Mrs. T——, a lady 50 years of age, was referred to me July 26, 1871, by Dr. Belden. The patient was at the change of life, so called, but all her previous life had been unusually strong and free from nervous disorder. Her symptoms were, severe headache, with clonus hysterics occasionally; anorexia, insomnia, great mental depression, and profound nervous exhaustion. She could not read, or walk two blocks without being utterly overcome.

The pulse was good, and the nutrition was well preserved. She had taken various and judicious internal remedies. A course of treatment by central galvanization accomplished something for her, but not much. In the course of a year she recovered, and time seemed to do the work.

The peculiar obstinacy of some cases of neurasthenia to all forms of treatment, electrical, etc., is shown in the following case. Every now and then I meet with a case similarly rebellious.

REMARKABLE CASE OF NEURASTHENIA INDUCED BY OVER-TOIL.

Long standing; great debility and little or no pain; localized burning sensations, complicated with, but probably not dependent on, ante flexion of the uterus and dysmenorrhœa. Great susceptibility to electricity. No marked benefit from all methods of electrization or medication. Improved by time.

CASE IV.—Miss G——, a young lady of about 24 years of age, was first seen, with Dr. C. L. Mitchell, Nov. 24, 1871. The patient was of a very fine organization, and of slight, fragile build. Left an orphan at an early age, she had worked hard as a copyist in a telegraph office, where she toiled many hours a day to support herself and her younger brothers and sisters. For two years or more she had been in a condition of excessive debility, which her physician could control only imperfectly by medication.

She could not walk a single block, or even a part of a block, and so remained constantly indoors. Her appetite was feeble and fickle; sleep was uncertain and disturbed; the circulation unequal. The pulse, though weak and nervous, was yet tolerably strong for a delicate lady, but was very susceptible to mental influences. Careful examinations had been able to detect no disease of the lungs or heart, or of any organ; the uterus had not been examined.

Fainting spells, or spells resembling fainting, came over her after severe exertion; even the shock of hearing the door open fearfully agitated her, so

that she suffered for a number of minutes. She dreaded the coming of a new doctor, and lived in a condition of painful apprehension when she learned that I was to be called in to see her.

To all medication she was extremely susceptible; even a few drops of dilute phosphoric acid seemed to do injury. Similarly all tonics and stimulants were badly borne. Some mental depression accompanied all these symptoms; but the patient had considerable *force of will*, and when in good health was very energetic. There were no fits of laughing or crying.

After a careful and thorough trial of general faradization, central galvanization, and galvanization of the cervical sympathetic, I gave up the case. She bore electricity as she bore everything else—badly, and no amount of treatment succeeded in bringing her to that condition where she could tolerate an average dose of either current.

During the latter part of the treatment the uterus was carefully examined by Dr. Skene, who found a tendency to vaginismus and ante flexion; but these symptoms were regarded merely as accompanying or incidental phenomena, and were not treated.

After electrical treatment was abandoned time came slowly to the rescue, and, under the care of her physician, she so far improved as to be able to walk out, but she subsequently relapsed.

This case illustrates: First, that there are certain temperaments that will not bear electricity; secondly, that in nerve functional disturbances time, rest, and hygiene, may cure or greatly relieve, after medication has failed. In all these cases special pains must be taken to avoid over exertion, mental or muscular. A slight indiscretion may put back the patient for weeks or months. For the nervously exhausted to overdo, even for an hour, is a blunder that is almost a crime.

SPINAL IRRITATION, ASSOCIATED WITH PROLAPSUS UTERI.

Localized crawling sensations; neuralgia; improvement under central galvanization and general faradization.

CASE V.—Madam J., a lady of middle life, was referred to me June 11, 1872, by Dr. A. B. Crosby. The patient was of a good constitution, and had usually been well, but recently there had been symptoms of nervous exhaustion, with spinal irritation, and tenderness of the vertebræ, all associated with a not very severe degree of prolapsus uteri.

Her most distressing sensation was that of *crawling and creeping in the back, arms and legs*.

The sensations were most marked after fatigue, and were very annoying; these sensations were referred to the tender points in the dorsal and lumbar vertebræ.

Turkish baths had given some relief.

I treated her one month by central galvanization and general faradization alternately, and with good results.

HYSTERIA WITH NEURASTHENIA IN A MARRIED WOMAN, FOLLOWING
AN ATTACK OF REMITTENT FEVER.

Rolling, heaving, beating motions in all parts of the body ; localized flushing ; sparks before the eyes ; spinal irritation ; mental depression ; plethora ; good pulse ; decided improvement under central galvanization, general faradization, internal medication and counter-irritation.

CASE VI.—Mrs. R——, a married lady, 38 years of age, was first seen by me November 19, 1871. The lady was fleshy, full blooded, and had a very good pulse ; but was excessively nervous, and gave an interesting history of hysteria with neurasthenia. During the previous summer and fall, the patient had been prostrated by remittent fever that had left her in a condition of extreme nervous prostration, from which she seemed very slow to rally.

Her debility was so great that she could walk or ride but a short distance, and her despondency was so intense that life seemed hardly worth the struggle. Her most distressing symptoms were rolling, heaving or beating motions, felt all the waking hours, especially in the head and stomach, but more or less in the legs, feet, arms, and in all parts of the body. The limbs would feel as though streams of water were rolling through them.

Vertigo was a symptom that frequently annoyed her, and, as she expressed herself, her “legs felt dizzy.”

Localized flushings of heat were felt at various times in the face, legs and arms : these would appear and disappear in a moment.

Flashes and sparks before the eyes were a frequent symptom.

Tenderness of the dorsal and lumbar vertebrae, at the points where tenderness is so often found, was manifest on moderate pressure.

For these symptoms I prescribed central galvanization and general faradization, together with the internal use of Horsford's acid phosphate and cod-liver oil emulsion. Counter-irritation, by means of small blisters of cantharides and tartar-emetic ointment was employed. Strychnine was tried internally, and, as is so often the case, aggravated the symptoms.

Under this treatment the patient slowly but unsteadily improved, and with occasional relapses. February 1 the treatment was discontinued : long before that time the patient had been able to go out to walk and ride.

TRAUMATIC HYSTERIA.

I have applied this term to those cases where symptoms clearly hysterical are caused by concussion or some form of direct or indirect injury to the central nervous system. A severe fall or blow on the head may, through concussion, bring the central nervous system into a state where symptoms precisely similar to those that are found in hysteria, spinal irritation and neurasthenia appear. The symptoms thus ex-

cited have all the vagueness, the transitoriness, the protean character of hysterical and neurasthenic symptoms in general. Under this head also I bring those cases where similar symptoms are excited by sunstroke, or cerebro-spinal meningitis.*

In the following case the symptoms—as here narrated by the patient herself, the daughter of a physician—followed a severe attack of cerebro-spinal meningitis. The symptoms are accurately and fully described, and are representative of a certain class of nervous symptoms.

CASE VII.—“For many months I had a tremor or chill, when just at the point of going to sleep, or on waking in the morning, and through the middle of the day felt miserably, having but little appetite. Some days I was sleepy and stupid all the morning, and others, uneasy and restless, with a pricking sensation in spots all over the body, more especially the face and arms. The sore spot in the left of my head seemed like an inflamed nerve—to press upon it, caused pain; and any fatigue whatever, gave such a weariness to that part of the brain, that I seemed unable to use it,—a feeling of perfect exhaustion.

“As summer wore on, I could see that I gained in strength of mind considerably, but was a long way off from health. My left foot began to have a slight feeling of numbness in the bottom, and the whole limb was weaker than the right one; also the left arm and hand were occasionally slightly numb.

“When I began to sit up, about three weeks after the first attack, I tried to read, but found I could read but a few words without pain, or a dazzling, blurred feeling back of the eyes. Through the summer my eyes grew worse,—a sort of dimness seemed to rest upon everything I saw, and I had a heavy, compressed feeling in the forehead, which weighed down the lids of my eyes so that I sat with them closed much of the time. I was unable to look at anything above the level of my eyes, or downward, by moving the neck, without causing dizziness. As winter came, I found I could read rather better, but not without the same dazzling sensation, and often it seemed as if the nerves of my eyes were losing their power altogether.

“For months after the first attack, the back of my head and neck pained me very much, and became very weak, so that I was hardly able to sit erect, and generally felt comfortable only when the head was leaned back considerably: something seemed to be drawing it back. My dreams were sometimes fearful during the early part of my sickness. One night I woke with the impression that my head was being slowly *crushed*, and for some time after the nerves of my head felt as if contracted.

*For details, with cases, I may refer to my paper on *Certain Nervous Sequelæ of Cerebro-Spinal and Thermic Fever*, in Brown-Sequard's *Archives of Scientific and Practical Medicine*, No. 4—1873.

"During the whole year, but chiefly through the first few months, I felt a crawling sensation, as of worms, upon different parts of my body, and dreamed of them as creeping over my head, and sticking their feet in my brain ; or of running beneath trees, whose branches scratched the top of my head."

The above case was treated by central galvanization, general faradization, and the phosphoric emulsion,* and with excellent effect. I have recently treated a case with similar symptoms, resulting from sunstroke, with very rapid improvement.

The importance of making a correct diagnosis between structural and functional disease is well shown by the following case. The peculiarity of some exhausted states of the nerve centres, that the patient apparently holds his strength in full,"or entirely under control for a short time, until he suddenly gives way, was, in this case, well illustrated. There was, 'as will be seen, no paraplegia, except of a temporary character after exertion.

WEAKNESS IN KNEES AND LEGS OF AN HYSTERICAL CHARACTER.

Improvement under galvanization of spine ; general faradization ; counter-irritation, and internal medication.

CASE VIII.—Miss S——, a young lady of about twenty-four years of age, was referred to me June 2, 1871, by Dr. S. J. Holley. For three years and some months the patient had complained of inability to walk, for any considerable distance, without "giving out at the knees." Although her general condition was not remarkably good, she complained of no other distinctive symptom; and this special difficulty in walking, that was referred to the knees, did not seem to be associated with any other symptom of sufficient importance to attract her attention. This weakness, it should be observed, would come on suddenly, almost instantaneously, while she was walking, and at once she would be forced to sit down, or seek some assistance. An attempt to walk even a single block, was sufficient to bring on the strange symptoms. Very naturally the patient had supposed *the knees* themselves were diseased, although no external evidences of disease could be seen on either leg. At one time she had been treated by localized faradization of the knees without benefit.

The history of the case, in spite of its meagreness, at once suggested to me the view that the spinal cord was the true seat of the disease, whatever it

*The method of preparing this most valuable emulsion of cod-liver oil, phosphoric acid, etc., is given in the *Archives of Electrology and Neurology*—May, 1874.

might be. Examination of the spine showed tenderness of the lumbar vertebræ, of a decided, but not unusual, character; this tenderness, with the sudden giving way at the knees in walking, were the only symptoms from which the patient suffered. There was no anæsthesia, no feeling of numbness, no sensory disturbances whatever; no motor paralysis, and no diminution or modification of electro-muscular contractibility; no feeling of a cord about the abdomen or limbs; no difficulty of bladder or rectum, and no evidences of uterine disease. One fact of interest and suggestiveness was that, for a few days, at one time the symptoms seem to leave the knees, and go to the abdomen and pelvic regions: then again return to the knees. By intervals, during the three years she had been afflicted, there would be almost complete recovery. The patient felt better in a recumbent position. Clearly there was no organic disease. The condition of the cord was apparently one of exhaustion, with anæmia. The evidences of anæmia were the debility that was brought on by an attempt to use the cord in walking, the entire absence of symptoms of congestion, or even of transient hyperæmia, such as tingling, pricking, burning and heat in the bottoms of the feet, or neuralgic pains, and finally, the fact that the patient felt better in a recumbent position. A favorable prognosis was given.

The treatment used was general faradization and galvanization of the spine, counter-irritation over the tender vertebræ, and the internal use of Horsford's acid phosphate and phosphide of zinc. Under this treatment her improvement was quite slow. In one month she was somewhat stronger, but yet far from being well: she could walk further, but not more than one-eighth of a mile. The idea that the knees were the diseased parts was so powerfully impressed on the patient's mind that she was allowed to try the effect of elastic caps or stockings, without much benefit. In August the patient went to the country, where she continued to improve, and when we last heard from her she was nearly well.

In another similar case the results were even better.

ASTRAPHOBIA (*αστραφη*, *lightning*, *φοβος*, *fear*).

I have applied this term to those cases where, on the approach of or during a thunder-storm, there is very great fear, with nausea, headache, diarrhœa, excessive debility, and, in some instances, convulsions. The disease is analogous to the *agoraphobia* described by Westphal. It is found in both sexes. In the following case, astraphobia was complicated with other important symptoms:

Hereditary astraphobia; reflex paralysis of left forearm; writer's cramp; anæsthesia associated with neurasthenia; improvement under localized galvanization and faradization and central galvanization, spinal cord nerve current and plexus nerve current, combined with internal medication.

CASE IX.—Mrs. R—, a widow of 39 years of age, was referred to me July 27, 1871, by Dr. A. W. Catlin. Eight weeks before that time she had

run a needle into her right forefinger; the needle was removed in three hours, but at once loss of power was experienced in the fingers, and in a week the forearm also had become very weak.

The patient supported herself by copying many hours daily and nightly, and the query arose whether the affection was reflex paralysis, or writer's cramp. The history of the case and the special symptoms seemed to show, clearly enough, that the case was one of paralysis, probably reflex, induced by the injury, but that the exercise of the arm in writing had acted as a predisposing cause. This opinion was strengthened by the fact that the patient had had some symptoms of writer's cramp before the injury.

Electro-diagnosis.—No loss of electro-muscular contractility, but volitional contractility much diminished and considerable anæsthesia, made evident by examination with the æsthesiometer and the electric brush. There was also analgesia.

Examination with the dynamometer showed loss of force over the muscles, and the difficulty of writing was so great that she had acquired the habit of copying with the left hand. The patient was of a thoroughly nervous constitution, and all her life had suffered from *astraphobia* (fear of lightning). Even in her babyhood the approach of a thunder-storm had markedly disturbed her nervous system, and long before she was old enough to be afraid of lightning, she was a victim to the weakness, the distress, the *malaise* and after unpleasant nervous symptoms that lightning excites. *Her grandmother had been similarly affected.*

Dr. Catlin treated the patient by localized faradization and strychnine, and the patient observed that shortly after the electricity was used, the fear of lightning was removed. This was the more singular from the fact that only localized faradization of the arm was used, and no general faradization or central galvanization.

I recommended the use of the electric brush, central galvanization, and the internal administration of Horsford's acid phosphate. The details of the treatment, with the exception of the central galvanization, were carried out by Dr. Catlin, and the patient somewhat improved. Subsequently the patient was terribly frightened by stumbling over the body of a drunken man, in a dark lane of the city, at midnight, and in an almost unconscious state arrived home, and was next day taken sick. Then followed pain in the *very spot* where, weeks before, the needle had entered the hand, and the muscles of the hand began to improve.

June, 1872, the patient again consulted me. There was still, as before, local anæsthesia, only more profound, anorexia, insomnia, spinal irritation, and various symptoms of the neurasthenic condition.

She was again treated, and again improved; but her recovery was never absolute.

In cases like the above, there is more than simple, ordinary fear. The condition of the atmosphere, before and during a thunder-storm, has been repeatedly shown, by observation, to

be very different, electrically, from the usual conditions.* The changes and disturbances in the electrical state are very marked and very rapid, and it is probably on account of these changes that the excessive fear, the headache, vomiting, diarrhœa, etc., are experienced.

One of the worst cases of the disease I ever saw was in a young man who was otherwise well, and apparently strong. The symptoms of diarrhœa, in many, occur during sleep, even when the patient is not conscious of the existence of a thunder-storm. A medical friend tells me that, for several years, he would wake up in the morning with a diarrhœa, when there had been a thunder-storm during the night, even though he had been all the time sound asleep.

Astraphobia is one of the sequelæ of lightning-stroke. A very interesting case of this kind, occurring in a physician of great strength of constitution and great native courage, will be published in detail in the *Archives of Electrology and Neurology* for November, 1874. The disease is clearly subject to the laws of hereditary descent, as is proven by the above case, as well as by others that I have seen.†

AGORAPHOBIA (FEAR OF PLACES).

Of this form of morbid fear I have seen two cases. In these cases, the East River Ferry was the obstacle: for a long time neither of them could be induced to cross it. They seemed to have the same terrible dread of crossing the ferry that some people have of ascending a height. Both cases recovered. It may be queried whether the fear of ascending heights may not, in some cases, indicate a pathological state. It is certainly dependent, to a very appreciable degree, on the physical state. All the kingdoms of this world, and the glory of them, could not induce me to ascend a high ladder, or stand on the edge

* See my paper on *Atmospheric Electricity and Ozone: their Relation to Health and Disease*; in *Popular Science Monthly* for Feb., 1874. Also Beard & Rockwell's *Medical and Surgical Electricity*—first edition.

† I should regard it as a great favor if those physicians who read this article, and who have met with any interesting cases of astraphobia, will communicate with me in regard to them.

of a tower or precipice, when I am at all exhausted nervously. At such times, indeed, the very thought of standing on an eminence, the mere fancy that I might be placed in such a position causes an actual spasm in the stomach, with a peculiar sinking sensation, which is not imagination, but is as much a reality as small-pox or a broken leg. I cannot bear to hear my friends tell of their perilous ascents, and I suffer therefrom not only at the time, but subsequently when I think of it. In other matters there is no other earthly thought or imagining that causes me such distress, and I find that, in this respect, much depends on the general state of my nervous system.

